CCIH200SC User's Manual

(Product Guide)

Version 4.14(Rev.E)

September 25, 2013

Class A Digital Device (industrial & commercial environment)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to CE and FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CCIH200SC User's Manual

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About This Document

This document is prepared for users of CCIH200SC supplied by Costar Video Systems, LLC. It is assumed that the users are familiar with Microsoft Windows operating systems and Web browsers such as Internet Explorer. It is also assumed that the users are well aware of how to install and use the network equipment such as LAN, Hub, router, and having basic knowledge of network terminologies. If you have any questions regarding network installations, please contact your network equipment vendor or network administrator or Internet service providers.

For updated contents, detailed features and other applications from Costar Video, please refer to the user's manual in CD-ROM provided with the product you purchased, or visit Costar Video's website at www.costarvideo.com.

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Technical Support

For technical support call, email, or visit our web site.

Telephone: 888-694-7827

Website: www.costarvideo.com

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1. Product Overview

1.1. CCIH200SC

Costar Video® CCIH200SC is a stand-alone device transmitting vdeo from built-in megapixel camera over IP(Internet Protocol) network.CCIH200SC model is divided into 3 different types: DS, MS and FS.

It can transmit up to 30fps@D1(DS)/1.3M(MS)/2M(FS) over the existing network. You can monitor video of CCIH200SC through web browser(ie. MS Internet Explorer), if CCIH200SC is connected to the network. CCIH200SC supports video compression both MJPEG and H.264 simultaneously so that user can choose appropriate video compression for the purpose. For both MJPEG and H.264, CCIH200SC provides 6 levels of video quality. CCIH200SC also supports both ONVIF and PSIA.

Built-in SD card slot for full-blown DVR functionality is optional.

Picture 1 : CCIH200SC

1.2. Key Features

- Standalone device with a built-in web server
- 10M/100M Auto-Sensing Ethernet
- Configuring and controlling through Web browser
- Max 30 fps transmission speed on TCP/IP network
- Effective Bandwidth & Bit-rate Control (VBR/CBR) by H.264
- Supports Dual Streaming in MJPEG and H.264
- Support Dynamic IP network by IPCCTVDNS Server
- Support Sensor Input and Digital Output
- Support Transparent Mode
- Encryption function by user authentication
- Image transmission function via FTP and Email
- Support both ONVIF/PSIA

1.3. Technical Specification

CCIH200SC-FS			
Hardware	32bit Embedded CPU NAND Flash 128Mbytes/DDR2: 128Mbytes Linux version 2.6.xx operating system Battery backed up real-time clock		
Image sensor			1/2.8" progressive scan CMOS Active pixels 2080H x 1553V, 3.23M Effective pixels 2096H x 1561V, 3.27M Pixel size : 2.5 (H) μm × 2.5 (V) μm Color filter Bayer arrangement of primary colors: R, G, B Bit number of internal ADC: 10/12 bits Parallel output: 37.125 MHz, 10/12 bits Maximum frame rate in all-pixel scan mode: 60 fps
Lens			Auto IRIS & Vari-focal for 2Megapixel 2.8 - 10.0 mm F1.2
Minimum illumination			Color: 2 Lux(F1.2) B/W: 0.01 Lux(F1.2)
Video related special functions		Day & Night (Auto/B&W/Off) Auto White Balance Noise Filter (Off/On) Brightness/Contrast/Sharpness/AGC Gain Control Lens Type (DC/Manual) Shutter (Manual/Auto) Vertical/Horizontal Flip Frequency Control (50/60)	
Video compression	MJPEG H.264		
Video Standards	ONVIF PSIA		
Resolution			1920x1080, 1280x720 640x352, 320x176, 160x96

Frame rate (each channel)			Up to 30 fps @ 1080p (Other Stream at QCIF)
Video Streaming	MJPEG and H.264 Dual Streaming (Simultaneously) Controllable frame rate and bandwidth		
Image setting	Compression levels: 6 (MJPEG, H.264) Color: color, black & white		
Voice	8 bit PCM (G.711-u-low), Sampling rates 8KHz, Mono Audio 1ch in & 1ch out		
LAN interface	10/100BaseT Ethernet auto sensing IEEE 802.3af Built-in POE (optional) IEEE 802.11b/g Built-in wireless (optional)		
SD card slot	Option		
Alarm I/O Interface	1 Photo-coupled inputs and 1 Relay output		
Video Output		-	1 loop through analog video outputs
Audio Input(MIC)			
Audio Output(SPK)			
Power Over Ethernet	Option		
Serial Interface	COM Port: RS-232, COM ports for console, serial input/output device Max Baudrate: 115,200 bps		
Security features	Multi user level protection for camera access, Alarm I/O		
Advanced Service	Up to 5.6M memory for Pre/Post alarm buffer E-Mail, FTP, IP notification, Alarm Notification to e-mail CGI Call by event or schedule		
Built-in Motion detections	Accuracy: 12x12=144 blocks Motion Sensitivity : -100 ~ 100 : 100 is hypersensitive		
Others	Transmit External data(EX:POS) transfer with Video IP notification by e-mail		
Management	Configurable by serial, web or telnet Remote system update via telnet, FTP OR web browser		
Developer support	Provides HTTP CGI API ActiveX control development kit		
Operating Environment	Temperature : 32° ~ 122°F (0° ~ 50°C) Humidity : 20 ~ 80% RH(non-condensing)		
Miscellaneous	Work with Smart NVR(CMS software) Dynamic IP support through IPCCTVDNS Server		

Simultaneous users	Live-cast for up to 16 clients
Installation, management and maintenance	Installation CD and web-based configuration Firmware upgrades over HTTP, telnet & FTP, firmware available at homepage
Video access from Web browser	Video access from Web browser
Minimum Web browsing requirements	Pentium 4, 2 GHz, 2GB(RAM) or higher Video Card: 256MB RAM, 1024x768 resolution or higher 100Mbps Network Adaptor or faster Windows XP Pro or later Internet Explorer 6.x or later
System integration support	Powerful API for software integration available at http://www.flexwatch.com, including Simple Viewer API, FlexWATCH Control SDK, event trigger data in video stream, embedded scripting and access to serial port peripherals over HTTP/TCP User can be installed user program daemon for event notification or sending image Embedded operating system: Linux 2.6
Supported protocols	HTTP, RTP/RTSP, TCP/IP, FTP, Telnet, RARP, PPPoE, SNMP, PAP, CHAP, DHCP, NTP, SMTP client
Approvals	KCC FCC : Class A CE : Class A RoHS, IP66
Dimensions (HxWxD) and weight (1lbs = 454g)	148Ø x 121(H) (in mm) About 0.940kg without power supply 1.0kg impact-resident casing Polycarbonate clear dome glass Metal base

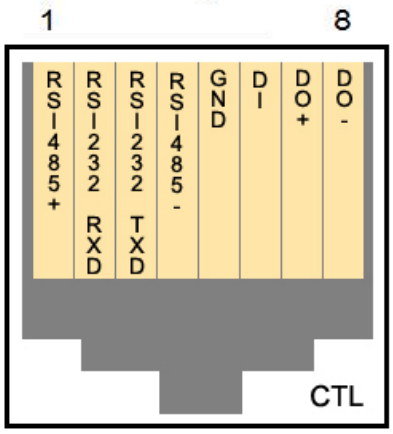
** All specifications are subject to change without prior notice.*

Table 1 : CCIH200SC Data Sheet

2. Hardware Description

2.1. CTL Port Description

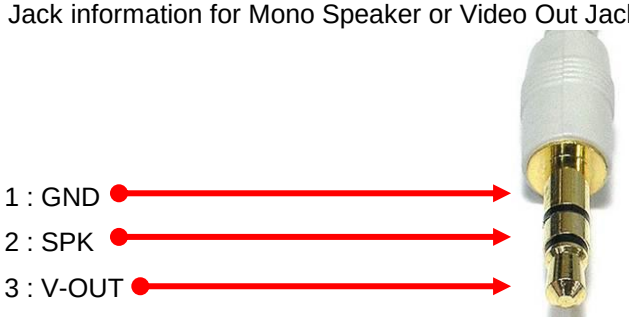
It's RS-232 port for Serial input device, Modem or Console (Hyperterminal.connection). For RS-232 connection, RXD,TXD and GND are used. For connection to PC, RXD and TXD are used. RXD and TXD should be cross to communicate properly



Picture 4 : CTL Port Description

2.2. Speaker V-out Jack Description

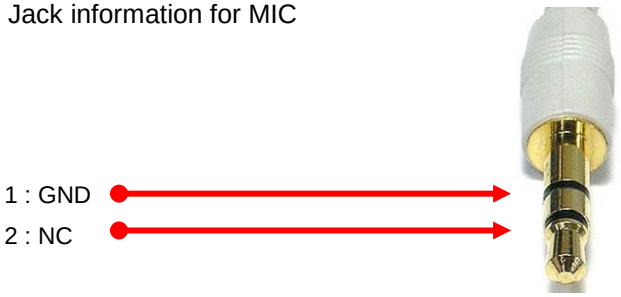
Jack information for Mono Speaker or Video Out Jack.



Picture 5 : V-out Jack

2.3. MIC Jack Description

Jack information for MIC



Picture 6 : MIC Jack

3. CCIH200SC Installation and Basic Setup

3.1. Before Installation

- Read carefully User's Manual.
- Check User's Network (IP Address, Network Mask and default gateway)
- Secure IP address for CCIH200SC.

3.2. Factory Default Settings

The following table shows the factory default condition. Please refer to this when you need to change the values on admin menu.

	Factory Default
Admin ID	root
Admin password	root
IP address	10.20.30.40
Network mask	255.255.255.0
Gateway	10.20.30.1

Table 5 : Factory Default

Note: Factory default Admin ID and Password are all lower case letters. You can change the password with Capital letters.

3.3. Installing CCIH200SC

Following steps are the physical installation process for CCIH200SC.

1. Fix the CCIH200SC in place
2. Connect the CCIH200SC to the Internet cable through the LAN port.
3. Connect the power supply of CCIH200SC.

After that, you need to follow the steps below.

- Network Configuration: Refer to "IP Installer User's Manual"
- Camera Configuration: Refer to "FlexWATCH Admin Menu User's Manual"
- Service Configuration: Refer to "FlexWATCH Admin Menu User's Manual"